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What is claimed is:

- 1. A method for identifying call appearance values in a PBX device coupled to multiple ISDN BRIs said method, for each BRI coupled to the PBX device, comprising the steps of:
 - (a) generating a first call from PDN1 to PDN2 in the same BRI circuit; and
 - (b) monitoring the message exchange on the D channel to obtain first Call Appearance information.
- 2. A method according to claim 1 further comprising the step of:
 - (c) obtaining first Call Appearance information from the D channel.
- 3. A method according to claim 2 further comprising the steps of:
 - (d) putting the first call on hold;
 - (e) generating a second call from PDN1 to PDN2 in the same BRI circuit; and
 - (f) monitoring the message exchange on the D channel to obtain second Call Appearance information.
- 4. A method according to claim 3 further comprising the step of: $(\mathcal{N}^{\gamma})^{-1}$
 - (g) obtaining second Call Appearance information from the D channel.

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- 5. A method according to claim 4 further comprising the step of:
 - (h) repeating the steps of putting a call on hold, generating another call, and monitoring the D channel until the generated call results in a busy signal.
- 6. A method according to claim 5 further comprising the step of:
 - (i) repeating steps a-h with calls being generated from PDN2 to PDN1.
- 7. A PBX device coupled to multiple ISDN BRIs, said PBX device comprising;
 - (a) dialing means for generating a first call from PDN1 to PDN2 in the same BRI circuit; and
 - (b) Monitoring means monitoring the message exchange on the D channel to obtain first Call Appearance information.

8. A PBX device according to claim 7 further comprising:

- (c) capture means for obtaining first Call Appearance information from the D channel.
- 25 9. A PBX device according to claim 8 further comprising:
 - (d) holding means for putting the first call on hold; and
 - (e) repeating means coupled to said dialing means and said monitoring means, wherein upon putting the

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first call on hold, the repeating means causes the dialing means to generate a second call from PDN1 to PDN2 in the same BRI circuit, and causes the monitoring means to monitor the message exchange on the D channel to obtain second Call Appearance information.

10. A PBX device according to claim 9 wherein said repeating means is coupled to said capture means and causes said capture means to obtain second Call Appearance information from the D channel.

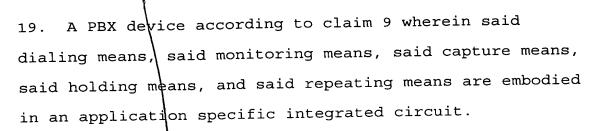
- 11. A PBX device according to claim 10 wherein said repeating means causes said holding means, said dialing means and said monitoring means to repeat the steps of putting a call on hold, generating another call, and monitoring the D channel until the generated call results in a busy signal.
- 20 12. A PBX device according to claim 11 wherein said repeating means causes said dialing means, said holding means and said monitoring means to repeat the steps of generating a call, monitoring the D channel, putting a call on hold, generating another call, and monitoring the D channel until the generated call results in a busy signal with calls being generated from PDN2 to PDN1.

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- 13. A PBX device according to claim 7 wherein said dialing means and said monitoring means are embodied in a microprocessor with an associated software program.
- 5 14. A PBX device according to claim 7 wherein said dialing means and said monitoring means are embodied in a field programmable gate array.

15. A PBX device according to claim 7 wherein said dialing means and said monitoring means are embodied in an application specific integrated circuit.

- 16. A PBX device according to claim 7 wherein said dialing means and said monitoring means are embodied in firmware in the PBX device.
- 17. A PBX device according to claim 9 wherein said dialing means, said monitoring means, said capture means, said holding means, and said repeating means are embodied in a microprocessor with am associated software program.
 - 18. A PBX device according to claim 9 wherein said dialing means, said monitoring means, said capture means, said holding means, and said repeating means are embodied in a field programmable gate array.



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20. A PBX device according to claim 9 wherein said dialing means, said monitoring means, said capture means, said holding means, and said repeating means are embodied in firmware in the PBX device.